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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/777,585	02/12/2004	Yoshihide Iwaki	JG-YY-5095C/500569.20104	4937

26418 7590 08/17/2006

REED SMITH, LLP

ATTN: PATENT RECORDS DEPARTMENT
599 LEXINGTON AVENUE, 29TH FLOOR
NEW YORK, NY 10022-7650

EXAMINER

STEELE, AMBER D

ART UNIT PAPER NUMBER

1639

DATE MAILED: 08/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/777,585	IWAKI ET AL.	
	Examiner	Art Unit	
	Amber D. Steele	1639	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,5-9 and 13-16 is/are pending in the application.
- 4a) Of the above claim(s) 8,9 and 13-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 5-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 2-12-2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 09/927,697.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>7/26/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of the Claims

1. Claim 1 was amended, claims 2-4 and 10-12 were canceled, and claims 8-9 and 13-16 were withdrawn in the amendment to the claims received on June 12, 2006.

2. Claims 1, 5-9 and 13-16 are currently pending.
Claims 1 and 5-7 are currently under consideration.

Election/Restrictions

3. Applicant's election of Groups I (claims 1 and 5-7) in the reply filed on June 12, 2006 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

4. Claims 8-9 and 13-16 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to nonelected inventions, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on June 12, 2006.

5. Applicant's election of nucleic acid as the species of probe molecule in the reply filed on June 12, 2006 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election

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without traverse (MPEP § 818.03(a)). However, upon further consideration, the species requirement is withdrawn.

Priority

6. It is noted that this application appears to claim subject matter disclosed in prior Application No. 09/927,697, filed August 9, 2001. **A reference to the prior application must be inserted as the first sentence(s) of the specification of this application or in an application data sheet (37 CFR 1.76), if applicant intends to rely on the filing date of the prior application under 35 U.S.C. 119(e), 120, 121, or 365(c). See 37 CFR 1.78(a).** For benefit claims under 35 U.S.C. 120, 121, or 365(c), the reference must include the relationship (i.e., continuation, divisional, or continuation-in-part) of all nonprovisional applications. If the application is a utility or plant application filed under 35 U.S.C. 111(a) on or after November 29, 2000, the specific reference to the prior application must be submitted during the pendency of the application and within the later of four months from the actual filing date of the application or sixteen months from the filing date of the prior application. If the application is a utility or plant application which entered the national stage from an international application filed on or after November 29, 2000, after compliance with 35 U.S.C. 371, the specific reference must be submitted during the pendency of the application and within the later of four months from the date on which the national stage commenced under 35 U.S.C. 371(b) or (f) or sixteen months from the filing date of the prior application. See 37 CFR 1.78(a)(2)(ii) and (a)(5)(ii). This time period is not extendable and a failure to submit the reference required by 35 U.S.C. 119(e) and/or 120, where applicable, within this time period is considered a waiver of any benefit of such prior

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application(s) under 35 U.S.C. 119(e), 120, 121 and 365(c). A benefit claim filed after the required time period may be accepted if it is accompanied by a grantable petition to accept an unintentionally delayed benefit claim under 35 U.S.C. 119(e), 120, 121 and 365(c). The petition must be accompanied by (1) the reference required by 35 U.S.C. 120 or 119(e) and 37 CFR 1.78(a)(2) or (a)(5) to the prior application (unless previously submitted), (2) a surcharge under 37 CFR 1.17(t), and (3) a statement that the entire delay between the date the claim was due under 37 CFR 1.78(a)(2) or (a)(5) and the date the claim was filed was unintentional. The Director may require additional information where there is a question whether the delay was unintentional. The petition should be addressed to: Mail Stop Petition, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

If the reference to the prior application was previously submitted within the time period set forth in 37 CFR 1.78(a), but not in the first sentence(s) of the specification or an application data sheet (ADS) as required by 37 CFR 1.78(a) (e.g., if the reference was submitted in an oath or declaration or the application transmittal letter), and the information concerning the benefit claim was recognized by the Office as shown by its inclusion on the first filing receipt, the petition under 37 CFR 1.78(a) and the surcharge under 37 CFR 1.17(t) are not required. Applicant is still required to submit the reference in compliance with 37 CFR 1.78(a) by filing an amendment to the first sentence(s) of the specification or an ADS. See MPEP § 201.11.

7. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 09/927,697, filed on August 9, 2001.

Information Disclosure Statement

8. The information disclosure statement (IDS) submitted on July 26, 2004 is being considered by the examiner. Please note that a typographical error was found and corrected on the IDS.

Oath/Declaration

9. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

A. The specification to which the oath or declaration is directed has not been adequately identified. See MPEP § 602.

B. A reference to parent U.S. Patent Application 09/927,697 is not provided (see section 6 above). Submission of an ADS would be sufficient to overcome the defective declaration.

Specification

10. The disclosure is objected to because of the following informalities: A reference to the prior application must be inserted as the first sentence(s) of the specification of this application or in an application data sheet (37 CFR 1.76), if applicant intends to rely on the filing date of the prior application under 35 U.S.C. 119(e), 120, 121, or 365(c). See 37 CFR 1.78(a). See section 6 above.

Appropriate correction is required.

Claim Objections

11. Claim 1 is objected to because of the following informalities: The phrase "a number of vinylsulfonyl groups are fixed an aqueous solution" is grammatically incorrect. The following corrections are suggested: a number of vinylsulfonyl groups are fixed in an aqueous solution, a number of vinylsulfonyl groups are fixed on an aqueous solution, a number of vinylsulfonyl groups are fixed within an aqueous solution. Appropriate correction is required.

12. Claim 12 is objected to because of the following informalities: The viscosity units of pascal-second(s) is typically written as mPs·s and not mPs s. Appropriate correction is required.

Claim Rejections - 35 USC § 112

13. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

14. Claims 1 and 5-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A. The phrase "thickening agent" in claim 1 renders the claim vague and indefinite. The phrase "thickening agent" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The specification states that the thickening agent is a polymer, a polyhydric alcohol, glycerol, a saccharide, starch, trehalose, or sodium alginate (please refer to pages 7 and 13). However, the claims state that the thickening agent

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comprises a water-soluble polymer and probe molecules. The metes and bounds of the phrase “thickening agent” are not clear (e.g. What is the thickening agent?). For example is a certain structure necessary to be a thickening agent, are the probes considered thickening agents, etc.

B. The phrase “aqueous solution” in claim 1 renders the claim vague and indefinite. The phrase “aqueous solution” is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The specification states that the aqueous solution comprises DNA fragments, polymers, nitrocellulose, and/or a thickening agent (please refer to pages 2-28). The metes and bounds of the phrase “aqueous solution” are not clear (e.g. What is the aqueous solution?; What are the components of the aqueous solution?; What are the components within the aqueous solution?). For example is a certain structure or formula necessary to be an “aqueous solution”, is water alone considered an “aqueous solution”, is the thickening agent, DNA fragments, polymers, vinylsulfonyl groups in the “aqueous solution” or part of the “aqueous solution”, etc.

C. The phrase “spotting onto a solid carrier...in which a number of vinylsulfonyl groups are fixed an aqueous solution” in claim 1 renders the claim vague and indefinite. What is actually being spotted is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The specification states that the aqueous solution, vinylsulfonyl groups, and/or DNA fragments are spotted (please refer to pages 2-28). The metes and bounds of what is spotted are not clear. For example are the vinylsulfonyl groups spotted, is

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the aqueous solution spotted, is the thickening agent spotted, is the water-soluble polymer spotted, are the probe molecules spotted?

D. The phrase "surface active agent" in claim 6 renders the claim vague and indefinite. The phrase "surface active agent" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The specification states that the microarray can be washed with water, sodium dodecyl sulfate, brine-citrate, or a buffer composition (please refer to pages 10 and 15; Examples). The metes and bounds of the phrase "surface active agent" are not clear. For example is a certain structure necessary to be "surface active", is water "surface active", is any buffer "surface active", etc.

E. Claim 7 recites the limitation "each of the aqueous solutions" in lines 1-2 of the claim. There is insufficient antecedent basis for this limitation in the claim.

F. The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

Claim Interpretation

15. The presently claimed invention is directed to:

A process comprising:

i. spotting onto a solid carrier nucleic acid fragments, oligonucleotides, or peptide nucleic acids wherein the probe has amino groups and the solid carrier has vinylsulfonyl groups in an

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aqueous solution comprising carboxymethylcellulose or polyacrylamide and a viscosity of 2-50 mPs·s.

- ii. incubating the solid carrier of step i in order to create covalent bonds between the vinylsulfonyl groups and the amino groups, and
- iii. washing.

Claim Rejections - 35 USC § 102

16. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

17. Claims 1 and 6-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Sutton et al. U.S. Patent 5,888,723 issued March 30, 1999.

For present claim 1, Sutton et al. teach methods of covalently attaching oligonucleotides to supports via polymers. In addition, Sutton et al. teach that the oligonucleotides are spotted in uniform, defined regions onto the support. Furthermore, Sutton et al. teach that the oligonucleotides are covalently bound to the support via polymers including polyacrylamides, vinylsulfonyl, and amino groups. Moreover, Sutton et al. teach viscosity of less than 1 poise (e.g. less than 100 mPs·s; encompassing the presently claimed range of 2-50 mPs·s). Additionally,

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Sutton et al. teach washing of the arrays. Please refer to the abstract; columns 2-15; Examples 3-4; claims 1, 12, 18, 20, and 22.

For present claim 6, Sutton et al. teach that the wash medium contains a buffered solution of sodium phosphate, sodium chloride, ethylenediaminetetra-acetic acid, and decyl sulfate (e.g. a “surface active agent”; please refer to column 15; Examples 3-4).

For present claim 7, Sutton et al. teach materials in compositions that form a uniform transparent gel with a viscosity of 1 poise at a shear rate of less than 100/second (e.g. identical viscosity; please refer to columns 13-14; claim 12).

Therefore the presently claimed invention is anticipated by the teachings of Sutton et al.

18. Claims 1 and 6-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Makino et al. U.S. Patent 6,864,055 filed June 22, 2001.

The applied reference has a common inventor (Makino) with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

For present claim 1, Makino et al. teach methods of covalently attaching nucleic acid to supports to form microarrays. In addition, Makino et al. teach that the nucleic acids can be DNA or PNA (e.g. peptide nucleic acids). Furthermore, Makino et al. teach that the nucleic acids can be covalently attached utilizing polymers, amino groups, and vinylsulfonyl groups and spotted

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onto the supports. Moreover, Makino et al. teach that sucrose, polyethylene glycol, or glycerol can be utilized to alter the viscosity. Additionally, Makino et al. teach that the microarrays can be washed. Please refer to Abstract; Figure 1; columns 2-9; Examples 1-3.

For present claim 6, Makino et al. teach washing with water (e.g. a surface active agent; please refer to Example 3).

For present claim 7, Makino et al. teach a solution with viscosity (e.g. identical viscosity; please refer to column 5).

Therefore the presently claimed invention is anticipated by the teachings of Makino et al.

Claim Rejections - 35 USC § 103

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

20. Claims 1 and 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sutton et al. U.S. Patent 5,888,723 issued March 30, 1999 and Ebersole et al. U.S. Patent 5,695,925 issued December 9, 1997.

For present claim 1, Sutton et al. teach methods of producing arrays by covalently attaching oligonucleotides to supports via polymers. In addition, Sutton et al. teach that the oligonucleotides are spotted in uniform, defined regions onto the support. Furthermore, Sutton et al. teach that the oligonucleotides are covalently bound to the support via polymers including polyacrylamides, vinylsulfonyl, and amino groups. Moreover, Sutton et al. teach viscosity of less

than 1 poise (e.g. less than 100 mPs·s; encompassing the presently claimed range of 2-50 mPs·s). Additionally, Sutton et al. teach washing of the arrays. Please refer to the abstract; columns 2-15; Examples 3-4; claims 1, 12, 18, 20, and 22.

For present claim 6, Sutton et al. teach that the wash medium contains a buffered solution of sodium phosphate, sodium chloride, ethylenediaminetetra-acetic acid, and decyl sulfate (e.g. a “surface active agent”; please refer to column 15; Examples 3-4).

For present claim 7, Sutton et al. teach materials in compositions that form a uniform transparent gel with a viscosity of 1 poise at a shear rate of less than 100/second (e.g. identical viscosity; please refer to columns 13-14; claim 12).

However, Sutton et al. does not teach divinylsulfone.

For present claim 5, Ebersole et al. teach arrays of analyte-polymers wherein the anylate can be DNA, biological receptor, or amino acids. In addition, Ebersole et al. teach that the anylate can be covalently bound or covalently coupled to the polymer. Furthermore, Ebersole et al. teach that the attachment of the analyte can be via divinylsulfone. Please refer to columns 5-13; Examples 1-9.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to utilize the specific species of vinylsulfonyl (e.g. divinylsulfone) taught by Ebersole et al. in the methods of producing arrays taught by Sutton et al.

One having ordinary skill in the art would have been motivated to do this because divinylsulfone is an art recognized species of vinylsulfonyl and the specific species utilized in the method would be a design choice. In addition, Ebersole et al. teach that there is a need in the

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art for polymers that retain the ability to form a composite with the surface of a sensor (please refer to column 3).

One of ordinary skill in the art would have had a reasonable expectation of success in the utilization of the specific species of vinylsulfonyl (e.g. divinylsulfone) taught by Ebersole et al. in the methods of producing arrays taught by Sutton et al. because of the examples provided by Ebersole et al. (Examples 1-9) and Sutton et al. (Examples 3-4).

Therefore, the utilization the specific species of vinylsulfonyl (e.g. divinylsulfone) taught by Ebersole et al. in the methods of producing arrays taught by Sutton et al. render the instant claims *prima facie* obvious.

21. Claims 1 and 5-7 are rejected under 35 U.S.C. 103(a) as being obvious over Makino et al. U.S. Patent 6,864,055 filed June 22, 2001 and Ebersole et al. U.S. Patent 5,695,925 issued December 9, 1997.

The applied reference has a common inventor (Makino) with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that

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the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

For present claim 1, Makino et al. teach methods of covalently attaching nucleic acid to supports to form microarrays. In addition, Makino et al. teach that the nucleic acids can be DNA or PNA (e.g. peptide nucleic acids). Furthermore, Makino et al. teach that the nucleic acids can be covalently attached utilizing polymers, amino groups, and vinylsulfonyl groups and spotted onto the supports. Moreover, Makino et al. teach that sucrose, polyethylene glycol, or glycerol can be utilized to alter the viscosity. Additionally, Makino et al. teach that the microarrays can be washed. Please refer to Abstract; Figure 1; columns 2-9; Examples 1-3.

For present claim 6, Makino et al. teach washing with water (e.g. a surface active agent; please refer to Example 3).

For present claim 7, Makino et al. teach a solution with viscosity (e.g. identical viscosity; please refer to column 5).

However, Makino et al. does not teach divinylsulfone.

For present claim 5, Ebersole et al. teach arrays of analyte-polymers wherein the analyte can be DNA, biological receptor, or amino acids. In addition, Ebersole et al. teach that the analyte can be covalently bound or covalently coupled to the polymer. Furthermore, Ebersole et al. teach that the attachment of the analyte can be via divinylsulfone. Please refer to columns 5-13; Examples 1-9.

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It would have been obvious to a person of ordinary skill in the art at the time the invention was made to utilize the specific species of vinylsulfonyl (e.g. divinylsulfone) taught by Ebersole et al. in the methods of producing arrays taught by Makino et al.

One having ordinary skill in the art would have been motivated to do this because divinylsulfone is an art recognized species of vinylsulfonyl and the specific species utilized in the method would be a design choice. In addition, Ebersole et al. teach that there is a need in the art for polymers that retain the ability to form a composite with the surface of a sensor (please refer to column 3).

One of ordinary skill in the art would have had a reasonable expectation of success in the utilization of the specific species of vinylsulfonyl (e.g. divinylsulfone) taught by Ebersole et al. in the methods of producing arrays taught by Makino et al. because of the examples provided by Ebersole et al. (Examples 1-9) and Makino et al. (Examples 1-3).

Therefore, the utilization the specific species of vinylsulfonyl (e.g. divinylsulfone) taught by Ebersole et al. in the methods of producing arrays taught by Makino et al. render the instant claims *prima facie* obvious.

Future Communications

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amber D. Steele whose telephone number is 571-272-5538. The examiner can normally be reached on Monday through Friday 9:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Paras can be reached on 571-272-4517. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ADS
August 9, 2006


MARK SHIBUYA, PH.D.
PATENT EXAMINER